Australian Government
Australian Transport Safety Bureau

Runway excursion involving a Cessna 172, VH-MKQ

13 km SW of Launceston, Tasmania, 30 April 2014

ATSB Transport Safety Report
Aviation Occurrence Investigation
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Addendum

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Runway excursion involving a Cessna 172, VH-MKQ

What happened

On 30 April 2014, the pilot of a Cessna 172 aircraft, registered VH-MKQ, was conducting a private flight from Launceston to a landing site about 13 km south-west of Launceston, Tasmania. Prior to departing Launceston, the pilot completed two circuits with stop-and-go landings, and confirmed the brakes were operating normally.

After a flight of about 6 minutes, the aircraft arrived overhead the landing site and the pilot overflew the site four times to assess the field. The pilot then conducted the approach as planned, however, when on final, he determined that the aircraft was too high and too fast to land so he conducted a go-around.

On the second approach, the pilot established the aircraft on final, with full flap selected, and slightly lower and slower than the previous approach. The wheels touched down at the pilot's selected point, and the aircraft bounced slightly. The pilot applied the brakes and the aircraft began to decelerate, however, as he increased the pressure on the brakes, the brakes locked up and the aircraft continued towards a fence.

The pilot selected the fuel mixture to idle cut-off and the engine stopped. The aircraft collided with the fence and the nose landing gear entered a ditch. The aircraft nosed over and came to rest inverted. The aircraft was substantially damaged (Figure 1) and the pilot was uninjured.

Figure 1: Damage to VH-MKQ

Source: Owen Woolley

Pilot comments

The pilot provided the following comments:

- He had calculated the landing distance available to be 440 m, and taken into consideration the approach path, including some trees. This was sufficient for the aircraft, however, the surface condition did not provide the deceleration he had expected. It had rained the previous day, however the surface was dry.

- Prior to flying to the site, he had walked, and driven up and down the nominated landing area many times to assess the surface and overall suitability. The ground was not soft or boggy. The landing strip inclined slightly uphill, to assist in slowing the aircraft down after landing.
- He had marked out the landing area the day before the incident and had ground crew providing support and radio communications for the landing.
- The landing strip was facing north-west into the prevailing wind, and the wind on the day was calm.

Safety message

This incident highlights the importance of considering all of the factors when assessing a landing area. The stopping distance required by an aircraft may vary considerably depending on whether the surface conditions are wet or dry and soft or firm. The Civil Aviation Safety Authority (CASA) Civil Aviation Advisory Publication (CAAP) 92-1(1) provides guidelines for aeroplane landing areas and is available at www.casa.gov.au/wcmswr/_assets/main/download/caaps/ops/92_1.pdf.

General details

Occurrence details

Date and time:	30 April 2014 – 1400 EST	
Occurrence category:	Accident	
Primary occurrence type:	Runway excursion	
Location:	13 km SW Launceston, Tasmania	
	Latitude: 41° 39.40' S	Longitude: 147° 04.80' E

Aircraft details

Manufacturer and model:	Cessna Aircraft Company 172N	
Registration:	VH-MKQ	
Serial number:	17272167	
Type of operation:	Private	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Substantial	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope, fact-gathering investigation was conducted in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.